



**TMM-2550**  
**Automatic Cement**  
**Compression and Flexural**  
**Testing Machine**

**CEMENT**

## Automatic Cement Compression and Flexural Testing Machine



### PRODUCT MODEL

- TMM-2550** | Automatic Cement Compression and Flexural Testing Machine 15/250 kN, 220-240 V 50/60 Hz
- TMM-2550/110** | Automatic Cement Compression and Flexural Testing Machine 15/250 kN, 110 V 60 Hz
- TMM-2552** | Automatic Cement Compression Testing Machine 250 kN, 220-240 V 50/60 Hz
- TMM-2552/110** | Automatic Cement Compression Testing Machine 250 kN, 110 V 60 Hz
- TMM-2555A** | Compression Jig Assembly to test 50 mm (2") mortar cubes, ASTM
- TMM-2555E** | Compression Jig Assembly to test portions of 40x40x160 mm mortar prisms, EN
- TMM-2558** | Compression Jig Assembly BS, to test 70,7 mm mortar cubes
- TMM-2560A** | Flexure Jig Assembly to test 40x40x160 mm mortar prisms, ASTM
- TMM-2560E** | Flexure Jig Assembly to test 40x40x160 mm mortar prisms, EN

### STANDARDS

EN 196-1 | BS 3892 | ASTM C109 | NFP18-411 | DIN 1164 | UNE 80101 | EN ISO 679

## Automatic Cement Compression and Flexural Testing Machine

### DESCRIPTION

The TESTMAK Automatic range of single testing chamber and double testing chamber compression and flexure testing machines have been designed for reliable and consistent testing of mortar samples. These compression and flexure testers are in suitable international standards ( EN 196-1, 459-2, 1015-11, 13454- 2; ASTM C 109, C348, C349 and BS 3892-1, 4551-1). Automatic cement compression and flexural machines are manufactured in terms of its technical properties taking into account client requirements by using suitable accessories. These machines also meet the requirements of CE norms for safety and health of the operator. Compression and flexure jigs should be ordered separately.

The TESTMAK automatic cement compression and flexure testing machines consist of very rigid two column single or double chamber frames, automatic hydraulic power pack with data acquisition and control system TCM-304.

The TESTMAK automatic cement compression and flexure testing machines allow less experienced operators to perform the tests. Once the machine has been switched on and the specimen is positioned and centered by the help of centering apparatus. The only required operations are;

Choosing the compression or flexure test by using the changeover valve.

Pressing the START button on the control unit.

Automatically saves the test parameters and test results.

#### Power Pack

TMC-3055 Automatic Hydraulic Power Pack, dual stage, controlled by TCM-304 is designed to supply the required oil to the load frames for loading. Very silent power pack can load the specimen between 50 N/sec to 2.4 kN/sec with an accuracy of  $\pm 5\%$ . A Rapid approach pump is supplied as standard. Safety valve (maximum pressure valve) is used to avoid machine overloading.

#### Motor

The motor which drives the dual pump is an AC motor, 380 V, 50-60 Hz, 3 phase, 1 hp and 1.1 kW and it is controlled by ENDA motor inverter. The variation in the oil flow is executed with the variation of the rotation speed of the motor.

#### Distribution Block

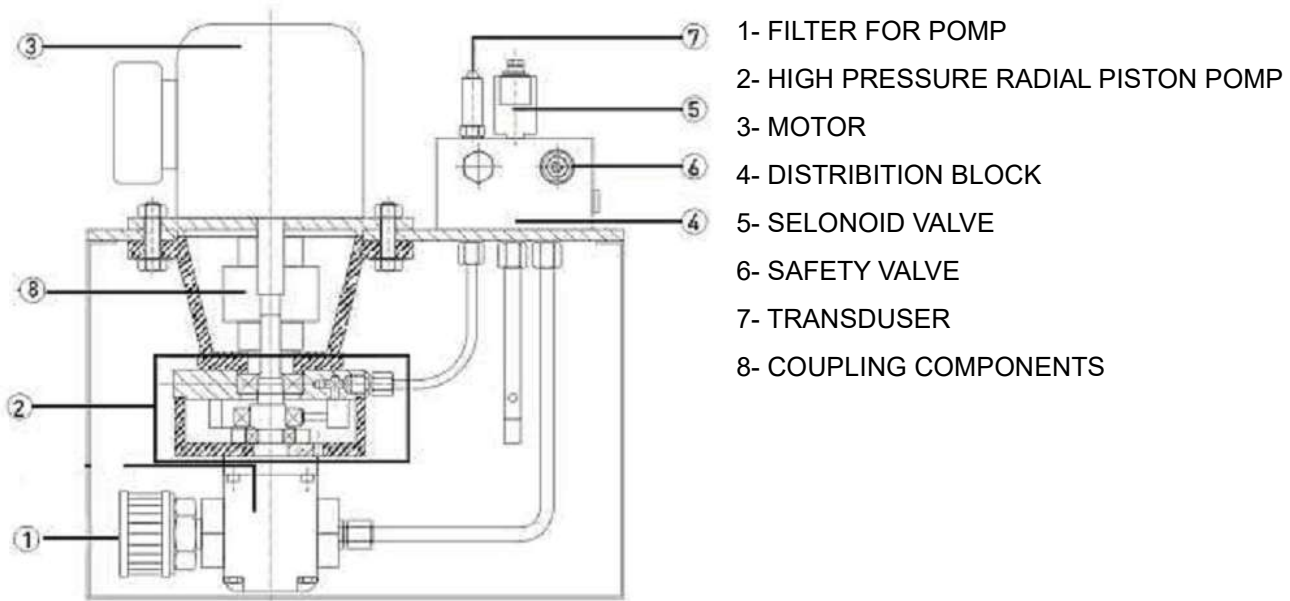
A distribution block is used to control the oil flow direction supplied by the dual stage pump, the following parts are fitted to the distribution block;

- Solenoid valve
- Safety valve (maximum pressure valve)
- Transducer
- High pressure radial piston pump

## Automatic Cement Compression and Flexural Testing Machine

### Oil Tank

The tank includes enough oil to fill the mechanism which pushes the ram during the test. The level and oil temperature can be seen on the indicator fitted to the tank. It has 18 L capacity. Hydraulic motor oil, number 46, must be used.



### TCM-304 LCD Graphic Display

The TCM304 LCD Graphic Display is controlled from the front panel, consisting of 240x120 pixels with a high resolution of 65,000 pixels effective resolution of the LCD display and function keys. Two analog channels for the load cell and two digital channels for there is a displacement sensor.

### Firmware

The TCM 304 LCD graphic display is controlled using the function keys on the front panel. Two analog channels for the load cell and two digital channels for there is a displacement sensor. Simultaneous load mapping of specific operating conditions, actual load speed and load / time schedule; USB connection to PC; Multi calibration coefficient.

### Data collection and PC software

The testing software compression machine is designed for both ASTM, EN and BS STANDARTS compression testing. This software includes controlling the machine, collecting load data and moving, saving them and reports. The compression test of the software samples takes the diameter and height as the input parameter. It automatically calculates the correction factor, coming with respect for the sample size standards. Graphical results and reports can be saved as a MS Excel sheet.

### MAIN CHARACTERISTICS

- Automatic flow calculation and stability of values.

## Automatic Cement Compression and Flexural Testing Machine

- 240x120 pixels blue-white graphic LCD.
- High resolution 65,000 dot.
- Backlight function.
- 21 touch keys membrane keyboard.
- Two analog and two digital channels, use for a dynamometer or pressure sensor, etc.
- Standalone fully automatic testing capability.
- You can do manual tests, if required.
- The type of sample and measurement can be entered respect for Standart.
- Load times, time stretches, test results and reports Examples of observed and printed.
- One USB port for connecting either a PC or a printer for data transmissions.
- Supplied with connection cable and software.
- Large permanent memory up to 256 test results.
- Language selection, English and Turkish.

Test Type	Flexure	Compression
Capacity	15 kN	250 kN
Class 1 Measuring Range	0.5 to 15 kN	2.5 to 250 kN
Lower Platen Dimensions	165 mm	165 mm
Upper Platen Dimensions	165 mm	165 mm
Max. Vertical Clearance	263 mm	263 mm
Piston Diameter	80 mm	160 mm
Maximum Piston Movement	50 mm	50 mm
Horizontal Clearance	200 mm	300 mm
Power	1100 W	
Oil Capacity	18 Liter	
Maximum Working Pressure	30 Bar	125 Bar
Rapid Approach Rate	80 mm	50 mm
Dimensions	1100x500x1600 mm	
Weight	420 kg	



**TM TEST MAK**  
**MATERIAL TEST EQUIPMENTS**

Telephone : +90 312 395 36 42  
Fax : +90 312 395 36 01

Website : [www.testmak.com](http://www.testmak.com)  
E-Mail : [info@testmak.com](mailto:info@testmak.com)

Koca Sinan Industrial Sites 1183 Street No:  
40 06370 OSTIM / ANKARA / TURKEY